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RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS

AND INTERFERENCES

Ex Parte ANTOON JOHANNES Van ROSSUM and

ANTONIUS FRANCISCUS BERTELS

Appeal 2009-009810
Application 10/815,942
Technology Center 1700

Oral Hearing Held: January 12, 2010

Before CATHERINE Q. TIMM, MICHAEL P. COLAIANNI, and JEFFREY B. ROBERTSON, *Administrative Patent Judges.*

APPEARANCES:

ON BEHALF OF THE APPELLANT:

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The above-entitled matter came on for hearing Tuesday, January 12, 2010, commencing at 9:17 a.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia, before Ronaldo Otero, a Notary Public.

THE USHER: Calendar No. 13, Appeal No. 2009-9810, Mr. Iwanicki.

JUDGE TIMM: Good morning, Mr. Iwanicki.

MR. IWANICKI: Good morning.

JUDGE TIMM: You're before Michael Colaianni; myself, Catherine Timm; and Jeffrey Robinson [sic] today.

MR. IWANICKI: Yes.

JUDGE TIMM: Robertson. Sorry. And if you could, spell your last name for the court reporter, or if you have a business card you can hand him, that'd be great.

MR. IWANICKI: I-w-a-n-i-c-k-i.

JUDGE TIMM: And as you know, you have 20 minutes.

MR. IWANICKI: Yes.

JUDGE TIMM: And you may begin when you are ready.

MR. IWANICKI: Okay. If it would please the Court, there is a theme that I'd like you to keep in mind when considering this case, and the theme is optimization without evidence of predictability is invention. And I think that's what we have here in this case, because the invention is a protective coating on a greenhouse. And the protective coating includes a pigment and a binder, and the term binder in and of itself has meaning. A binder in this art means that it has to have cohesive forces to apply to the pigment particles, but it also has to be able to adhere to the panes of the greenhouse.

Now, this binder is also called out as being a polymer and a polymer having four different characteristics, and the four characteristics are the weight average molecular weight, the acid value, the polydispersity, and the glass transition temperature.

Now, the obviousness rejection in this case, the articulated reasoning, if you will, under KSR, is based on the rationale of In re Aller. And I'm sure you're familiar with the In re Aller case. But that In re Aller case, the rationale of In re Aller cannot be applied to the facts of this case. Now, in In re Aller, you had a chemical reaction in the prior art. And then you had the claimed chemical reaction, the very same chemical reaction. But what was changed in the claim was the temperature at which the reaction was run and the percent of acid for one of the reagents.

Now, in that particular case, the court held that simply altering those two particular values was mere optimization, and in this particular instance -- and it was mere optimization because you had the same reactants, the same products, and all you did is you produced more of the same products. And so what you did is you optimized the yield of a known reaction.

Now, in the present case, we've got two pieces of prior art in the first rejection. It's van Rossum and Yoshida, okay? And now, van Rossum discloses a binder that is a different chemical entity from the claimed binder. It is different in kind. It is not different in degree. And we know it's different in kind because of the evidence presented through the declaration of Antonius Bertels. That declaration, essentially, set forth that van Rossum, which taught a binder, had particular values for the molecular weight, the acid value, the polydispersity, and the glass transition temperature. And those were different -- and those are different from -- at least two are

different from the ranges in the claim. And those values, those characteristics, are derived from the chemical structure of the polymer itself. And when you alter those characteristics, what you essentially do is you create a different chemical entity. It's different in kind. It has a different structure based upon those four different values.

And now, van Rossum needs to be changed. Even the Examiner understands that because of the obviousness rejection and the optimization. So it needs to be changed. So what one of ordinary skill in the art needs to do is look at van Rossum. They need to create a different molecule. And then they need to go ahead and see whether that molecule has the claimed characteristics, but also acts as a binder. And that's really very important because it relates to the combination of Yoshida.

What the position is here is that the evidence of unpredictability, if you will, is found in Yoshida. Now, there needs to be some level of predictability. I'm sure you're aware of the In re Antonie case as well, which was decided by the CCPA at the same time as -- or the same year, anyways, as In re Aller. And that case said an exception to In re Aller is where the characteristics being changed are not result effective variables. And what that means is that In re Antonie means that the effect of changing the characteristic has to be a predictable result. And there must be some evidence of that.

And that was the case in In re Aller. The court decided there that changing the temperature and the percentage of that acid, those were result-effective variables. And in this present case, there is absolutely no evidence that any of these four characteristics or the properties of the claim binder itself, when you alter those, those are result-effective variables. And the

Examiner needs to have that, needs to have that from the teachings itself, because, as we said, you have to be able to go from van Rossum's chemical entity to the claimed chemical entity.

And Yoshida, the evidence at Pages 9 and 10 of our Appeal Brief clearly demonstrates that the mere recitation of the ranges alone is not enough to predict the properties of the material that's created or that has those characteristics. And that's true because when you take a look at the evidence in the Brief, each one of those materials has different properties that could be mutually exclusive.

And Yoshida takes great pains when they describe -- I believe it's at Columns 3 through 12 -- when they describe each one of these ranges, they always end up the paragraph with a description of what the property is or what the material is: It's an alkali soluble adhesive. It's an alkali soluble film. It's a pressure-sensitive adhesive or an acrylic rubber or an injection molding or water ink. And each one of those different materials has ranges, or has variables, for those four characteristics that can overlap and, in fact, that can be identical.

And so one of ordinary skill in the art, taking a look at Yoshida, they're going to say well, I got to make something here from van Rossum. Van Rossum doesn't tell me anything about any of these four characteristics. There is nothing in there that gives any guidance or direction to change the chemical entity of van Rossum into something different. What the Examiner says is yeah, but Yoshida provides the ranges, and then concludes In re Aller, optimization of ranges. But the Examiner is missing the very important fact of the evidence that each one of these things is a result-

effective variable, meaning keep three constant, change one. What are you going to get? Is it predictable? There is no evidence of that.

But you've got four here, four that need to interact together to produce the claim binder. And that claim binder, that term itself, has meaning. It's not just a polymer. It's a polymer that can cohere to the pigment particles and also adhere to the glass. If you read through the specification, the invention is a little bit like the three bears with respect to adhesive strength: Not too weak, not too strong, but just right. And the position is that the Examiner has not set forth facts sufficient to invoke the rationale of In re Aller simply because there is no evidence that any of these ranges are result-effective variables. And without that, the Examiner does not have the articulated reasoning supported by rational underpinnings that's dictated by KSR.

JUDGE TIMM: The Examiner relies on Column 8 of the Yoshida reference at Line 18. In that paragraph, it talks about creating a film for agricultural use or a temporary protecting film. It appears, although it's not clear from the rejection, that the Examiner is trying to say that you would use the Yoshida acrylic acid polymer for the coating, based on the fact that Yoshida discloses using this in the agricultural use or the temporary protecting film. What's your position on that?

MR. IWANICKI: Well, Yoshida makes -- at least it makes clear to me, anyways, that there is a difference between the term coating and film. Yoshida uses both of those terms. It uses the term coating earlier on in the specification. They don't use the term coating with respect to this particular polymer, which is in the physical form of a film. That's the first thing. So a film is not a coating.

The second thing is the identification of an agricultural use, I'm not sure what that means. I don't know essentially what the specific meaning of that is. It certainly doesn't say horticultural use, which would be the use of something to help grow plants, which is what the effect of this invention is, and agricultural use can be fertilizer, for instance. I mean, one of ordinary skill in the art doesn't really understand what that means. At least I don't understand what that means. I don't think that's enough of a teaching there to bind the two together. But in this instance, there is no teaching in that film that there is a pigment present, and that's an important part of this claim. There's got to be a pigment and a binder to make the protective coating. And there also has to be adherence. There's got to be adherence to the glass because just like the three bears, it's not too week, it's not too strong, it's just right. It just sticks on there and lasts a season or two and then can be taken off.

Now, the film is in the form of a film. It's processed according to a hot melt technique. And so it's more akin to a plastic wrap. And what the properties of that plastic wrap are I don't know. One of ordinary skill in the art doesn't know. But what one of ordinary skill in the art knows is that the unpredictability based on Yoshida says that you may be able to make something and it may have values of those four characteristics, but you don't know whether it's going to function as a binder in this instance because Yoshida says you can choose the same values, and you can have water inks, and you can have films, and you can have injection molding stuff, and you can have pressure-sensitive adhesives, and you can have all these kinds of things. And so what one of ordinary skill in the art is going to take away from this is, "I don't know whether it's going to work or not. I really don't."

It's not even obvious to try. It is invitation to invent, but it is not obvious to try. There is no result effective variable identified by Yoshida, no evidence of that, and none can be gleaned because Yoshida is all over the place with respect to all of these values that are overlapping in getting materials that are very different in utility, function and characteristics.

JUDGE TIMM: Did you have any argument you wanted to make with regard to the other rejection?

MR. IWANICKI: Yes. Sato, based on Yoshida. Sato was the primary reference. Yoshida is the secondary reference which is supposed to provide that the polymer, if you will -- I believe that with respect to both of these rejections, the Examiner says the polymer is known. It's our position that the polymer is not known. The polymer needs to be created. The polymer at least in the context of the invention is this binder, and this binder has certain properties, and it also has these four characteristics. And they all have to come together. They all have to be in the prior art.

Now, with respect to Sato, I believe Sato is a film, and on top of that film there's a metal oxide, and the metal oxide provides some kind of protection, if you will. It only allows certain light through. And it does provide that protection, but there is no evidence, number one, that the film in Sato is performing as a binder. Why? Because it's sort of -- it's a bi-layer structure, and it's not as if you have the protective coating where you've got the binder and the pigment and if you read the specification, it's in the form of a viscous liquid, and it can be applied by spraying or painting or brushing.

With respect to Sato, you've got a film and you've got this coating on top of it, this metal oxide layer. There is no evidence that there is any binding capability, if you will, in the context of the invention. And our

position is that the Examiner says it's easy to swap out the film of Yoshida with that of Sato, but our position in our Brief is that you can't separate the two. I mean, the film is actually what's forming that pane, if you will. And if you remove it, you've got just that metal oxide coating, and it's almost like saying, you know, let's remove the drywall and leave the paint on this wall. You can't do it. The structure isn't going to be there. You're going to destroy the structure.

Now, if you were going to go ahead and start from the beginning and swap out the two; in other words, use that film of Yoshida and then put a metal oxide on top of that, you still don't have any evidence of it being a claimed binder. You don't know whether it's going to work for the same reasons that we've expressed with respect to van Rossum and Yoshida. There is no result effective variable, no evidence that any of these four characteristics is a result effective variable on which one of ordinary skill in the art would understand that if you alter one, you're going to get a predictable result.

First of all, the two main pieces of evidence are the Declaration that's been submitted that shows that, you know, you have different values. You're going to get different properties. And Yoshida, which says that you can have overlapping values for these characteristics, but there is no evidence that how you alter one, how that's going to affect the property of the material that you get because the properties are varied and Yoshida's written description essentially says you can have these four ranges and it's a water ink. You can have these four ranges and it's an injectable molding product. You can have these four ranges, and you can have one of the other products that's mentioned.

The written description itself provides the basis for one of ordinary skill in the art to understand that you've got those four characteristics, but it's also something else. It's a fifth characteristic. It's a property of the material. And that's what provides the unpredictability in this art. Chemistry is an unpredictable art. I know you may have often heard that term, but in this case, I think it's particularly applicable to this situation.

JUDGE TIMM: Did you have any other questions?

JUDGE COLAIANNI: No questions.

MR. IWANICKI: Oh, may I just add one more, Your Honors, please, if you'll indulge me? The Examiner also cites a case to In re Wertheim, and that is the case that says where you have overlapping ranges there is a prima facie case of obviousness. But I think in the context of In re Wertheim and other cases, one of ordinary skill in the art needs to understand that compounds within those overlapping ranges have to have predictable properties or predictable results. I mean, that's really the key.

And the evidence before this body is that it's not predictable what property, what material you're going to get, what you can use it for, if you simply have those four values. And the claim goes beyond those four values. It sets out a binder, and that binder has meaning. That binder needs to have the cohesive force to bind the pigment particles together and the adhesive force to stick it to a pane, if you will. It could be plastic, it could be glass. And without that evidence, the rationale of In re Aller cannot be applied. It's the exception that is expressed in In re Antonie.

JUDGE TIMM: Okay. I think we understand your position.

MR. IWANICKI: Okay. Thank you very much. Thank you very much for your time.

Whereupon, the proceedings, at 9:33 a.m., were concluded.